

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent Number: 7,304,459 B2  
Issued: December 4, 2007  
Name of Patentee: Matsushita Electric Industrial Co., Ltd.  
Title of Invention: SYNCHRONOUS RECTIFICATION MODE DC-TO-DC  
CONVERTER POWER SUPPLY DEVICE

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
FOR PTO MISTAKE (37 C.F.R. § 1.322(a))**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Certificate of Correction Branch

1. Attached is Form PTO/SB/44.
2. Correction of the Official Letters Patent is respectfully requested in view of the following text which appears correctly in the application file:

At Column 9, line 14, insert -- is -- between "element" and "longer", as indicated in claim 2, line 4, of the Amendment filed August 16, 2007.

At Column 10, line 3, insert -- is -- between "element" and "longer" as indicated in claim 4, line 4, of the Amendment filed August 16, 2007.

At Column 10, line 4, "elements" should read -- element --, as indicated in claim 4, line 5, of the Amendment filed August 16, 2007.

3. Please send the Certificate to:

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Assignment Recorded on: June 8, 2005

Reel: 017414

Frame: 0245

Respectfully submitted,

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LEA/dmw

Enclosure:

Form PTO/SB/44

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Dated: February 19, 2008

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drive pulse from the oscillation control meanscircuit;

a second switching element being driven by the output of the second drive meanscircuit;

a second rectifying meanscircuit having a positive electrode being ground and a negative electrode being connected to the output of the second switching element;

a third switching element being connected in parallel to the second rectifying meanscircuit and driven by the output of the first drive meanscircuit; and

a second coil being connected to the output of the second switching element; and

wherein the third switching element is turned on during an OFF period of the first switching element and turned off during an ON period of the first switching element.

2. (Currently Amended) The synchronous rectification mode DC-to-DC converter power supply device according to claim 1, wherein

an OFF period of the second switching element ~~includes an~~ longer than the OFF period of the first switching element,

a timing when the first switching element is turned off is later than a timing when the second switching element is turned off, and

a timing when the second switching element is turned on is later than a timing when the first switching element is turned on.

3. (Currently Amended) The synchronous rectification mode DC-to-DC converter power supply device according to claim 1, further comprising a third switching power supply circuit means for carrying out synchronous rectification based on the drive pulse of the second switching power supply meanscircuit, wherein

the third switching power supply means-circuit comprises:

a third drive means circuit for outputting a drive waveform voltage based on the drive pulse from the oscillation control means circuit;

a fourth switching element driven by the output of the third drive means circuit;

a third rectifying means circuit having a positive electrode being grounded and a negative electrode being connected to the output of the fourth switching element;

a fifth switching element being connected in parallel to the third rectifying means circuit and being driven by the output of the second drive means circuit; and

a third coil connected to an output of the fourth switching element

wherein the fifth switching element is turned on during an OFF period of the second switching element and turned off during an ON period of the second switching element.

4. (Currently Amended) The synchronous rectification mode DC-to-DC converter power supply device according to claim 3, wherein, an OFF period of the second switching element includes an OFF period of the first switching element, and

an OFF period of the third ~~fourth~~ switching element includes ~~an~~ longer than the OFF period of the second switching element,

a timing when the second switching element is turned off is later than a timing when the fourth switching element is turned off, and

a timing when the fourth switching element is turned on is later than a timing when the second switching element is turned on.

5. (Currently Amended) The synchronous rectification mode DC-to-DC converter power supply device according to claim 1, further comprising a sixth switching element being connected in parallel to the first rectifying means circuit and driven by the output of the oscillation control means circuit.

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

PATENT NO: 7,304,459  
PATENT ISSUED: December 4, 2007  
APPLICATION NO.: 10/538,051  
APPLICATION DATED: JUNE 8, 2005  
INVENTOR(S): SHUJI KAZUMA

PAGE 1 OF 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9

Line 14, insert -- is -- between "element" and "longer".

Column 10

Line 3, insert -- is -- between "element" and "longer".

Line 4, "elements" should read -- element --.

Mailing Address of Sender:

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This collection of information is required by 37 CFR 1.322, 1.323 and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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